In the Claims:

Claims 1-27 are presented below.

1. (Original) A method for managing a queue susceptible to unbalanced bandwidth allocation, comprising:

detecting a matching flow identification between a recently-received incoming packet with at least one packet selected from a set of outgoing packets; and

in response, mitigating unbalanced bandwidth allocation due to congestion-problem flows by reducing the processing priority of at least one of: said at least one selected packet, and the recently-received packet.

2. (Original) The method of claim 1, wherein detecting the matching flow identification includes comparing the flow identification of the recently-received incoming packet with the flow identification of said at least one packet selected from a set of outgoing packets, and wherein step of detecting the matching flow identification is responsive to the comparison.

3. (Original) The method of claim 1, further including quantifying congestion-problem flows, and assigning a processing priority to the quantified congestion-problem flows as a function of the quantification.

4. (Original) The method of claim 3, wherein the processing priority includes dropping more candidate packets as the number of unresponsive flows increases, and wherein mitigating unbalanced bandwidth allocation and reducing the processing priority includes using a stateless FIFO queue, and further including quantifying unresponsive flows, and dropping more candidate packets as the number of unresponsive flows increases.

5. (Original) The method of claim 1, further including selecting said at least one packet from the set of outgoing packets as a function of a random probability.

6. (Original) The method of claim 1, wherein said at least one packet includes a plurality of packets.

7. (Original) The method of claim 1, wherein reducing the processing priority includes dropping said at least one selected packet.

8. (Original) The method of claim 1, wherein reducing the processing priority includes dropping the recently-received packet.

9. (Original) The method of claim 1, further including selecting said at least one packet from the set of outgoing packets as a function of a probability corresponding to the location of the selected packet in the queue.

10. (Original) The method of claim 1, further including selecting said at least one packet from the set of outgoing packets as a function of a probability corresponding to a misbehaving flow.

11. (Original) A method for managing a queue susceptible to unbalanced bandwidth allocation, comprising:

selecting a packet subset from the set of outgoing packets as a function of a probability corresponding to at least one of: a misbehaving flow, and the location of the selected packet in the queue;

comparing a recently-received incoming packet with the selected packet subset and detecting therefrom a matching flow identification; and

in response, mitigating unbalanced bandwidth allocation due to congestion-problem flows by dropping the processing priority of at least one of: the selected packet subset, and the recently-received packet.

12. (Original) A system for managing a queue susceptible to unbalanced bandwidth allocation, comprising:

3

means for detecting a matching flow identification between a recently-received incoming packet with at least one packet selected from a set of outgoing packets; and

means, responsive to the detection means, for mitigating unbalanced bandwidth allocation due to congestion-problem flows by reducing the processing priority of at least one of: said at least one selected packet, and the recently-received packet.

13. (Original) A system for managing a queue in a flow-identification arrangement susceptible to unbalanced bandwidth allocation, comprising:

a server including a CPU arrangement programmed and arranged to

detect a matching flow identification between a recently-received incoming packet with at least one packet selected from a set of outgoing packets; and

in response to the matching flow identification detection, mitigate unbalanced bandwidth allocation due to congestion-problem flows by reducing the processing priority of at least one of: said at least one selected packet, and the recently-received packet.

14. (Original) The system of claim 13, wherein the server is an Internet server adapted to prioritize the flow of packets in a queue according to identification codes associated with the respective packets.

15. (Original) The system of claim 13, further including selecting said at least one packet from the set of outgoing packets as a function of a random probability.

16. (Original) The system of claim 13, further including selecting said at least one packet from the set of outgoing packets as a function of a probability corresponding to the location of said at least one selected packet in the queue.

17. (Original) The system of claim 13, further including selecting said at least one packet from the set of outgoing packets as a function of a probability corresponding to a misbehaving flow.

18. (Original) The system of claim 13, wherein mitigating unbalanced bandwidth allocation does not include maintaining state information.

19. (Original) The system of claim 18, including another communicatively-coupled server that is not adapted to detect a matching flow identification between a recently-received incoming packet with at least one packet selected from a set of outgoing packets, and, in response to the matching flow identification detection, to mitigate unbalanced bandwidth allocation by reducing the processing priority of at least one of said at least one selected packet and the recently-received packet.

20. (Original) A system for managing a queue susceptible to unbalanced bandwidth allocation, comprising:

a server including a CPU arrangement programmed and arranged to

detect a matching flow identification between a recently-received incoming packet with at least one packet selected from a set of outgoing packets, the packet being selected as a function of a probability corresponding to a misbehaving flow; and

in response, mitigate unbalanced bandwidth allocation due to congestion-problem flows without maintaining state information and by reducing the processing priority of at least one of: said at least one selected packet, and the recently-received packet.

21. (Original) The system of claim 20, wherein the CPU arrangement is further programmed and arranged to choose to drop more candidate packets as the number of unresponsive flows increases.

22. (Original) A system for managing a queue in a flow-identification arrangement susceptible to unbalanced bandwidth allocation, comprising:

a stateless FIFO queue configured and arranged to receive packets having associated flow identification information;

a server including a CPU arrangement programmed and arranged to

detect a matching flow identification between a recently-received incoming packet with at least one packet selected from a set of outgoing packets, the packet being selected as a function of at least one of a random probability and the location of the selected packet in the queue; and

in response to the matching flow identification detection, mitigating unbalanced bandwidth allocation without maintaining state information for the FIFO queue and by reducing the processing priority of said at least one selected packet and the recently-received packet.

23. (Original) The system of claim 22, wherein the CPU arrangement is further programmed and arranged to choose to drop more candidate packets as the number of unresponsive flows increases.

24. (Previously Presented) A method for managing a queue susceptible to unbalanced bandwidth allocation, comprising:

comparing a flow identification of a recently-received incoming packet with a flow identification of at least one packet selected from a set of outgoing packets;

detecting, in response to the comparison, a matching flow identification between the recently-received incoming packet with said at least one packet selected from the set of outgoing packets;

quantifying congestion-problem flows, and assigning a processing priority to the quantified congestion-problem flows as a function of the quantification; and

in response, mitigating unbalanced bandwidth allocation due to congestion-problem flows by reducing the processing priority of at least one of: said at least one selected packet, and the recently-received packet.

25. (Previously Presented) The method of claim 24, wherein the processing priority includes dropping more candidate packets as the number of unresponsive flows increases.

26. (Previously Presented) The method of claim 24, further including selecting said at least one packet from the set of outgoing packets as a function of a random probability.

27. (Previously Presented) The method of claim 24, wherein said at least one packet includes a plurality of packets.